



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/565,837	01/25/2006	Young-Goo Song	ABI555US	7654
32605 7590 04/04/2008 MACPHERSON KWOK CHEN & HEID LLP 2033 GATEWAY PLACE SUITE 400 SAN JOSE, CA 95110				
EXAMINER KIM, RICHARD H				
ART UNIT 2871		PAPER NUMBER		
MAIL DATE 04/04/2008		DELIVERY MODE PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/565,837

**Applicant(s)**

SONG ET AL.

**Examiner**

RICHARD H. KIM

**Art Unit**

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-8508)
- Paper No(s)/Mail Date 1/25/06
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1, 2, 4, 7, 8, 10, 13, 14, 16, 18, 19 and 21 rejected under 35 U.S.C. 102(e) as being anticipated by Kwak (US 6,862,069 B2),
3. Referring to claims 1, 7, 13, 18, Kwak discloses a device and method comprising a transparent substrate (20) including a display region that display an image, a peripheral region having a driving circuit for display an image through the display region (col. 1, lines 23-24), and a sealine region (12) that surrounds the display region to define a pixel region and a peripheral region (col. 1, lines 50-51); a first insulation layer (28) formed over the transparent substrate, the first insulation layer having an opening window in the sealine region; a pixel electrode formed on the first insulation layer of the display region (col. 5, line 23) ; a color filter substrate facing

the array substrate (col. 1, lines 45-51); a liquid crystal layer interposed between the array substrate and the color filter substrate; and a sealing member (12) formed at the opening window to bond the array substrate and the color filter substrate.

4. Referring to claims 2, 8, 14 and 19, Kwak discloses the device and method wherein the opening window penetrates the first insulation layer to expose the transparent substrate, so that the sealing member makes contact with the transparent substrate (Fig. 8, ref. 12, 28).

5. Referring to claims 4, 10, 16 and 21, Kwak discloses a second insulation layer between the first insulation layer and the transparent substrate (22), and wherein the opening window exposes the second insulation layer, so that the sealing member makes contact with the second insulation layer

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 3, 5, 6, 9, 11, 12, 15, 17, 20, 22 and 23 rejected under 35 U.S.C. 103(a) as being unpatentable over Kwak.

8. Referring to claims 3, 5, 9, 11, 15, 17, 20 and 22, Kwak discloses the device previously recited, but fails to disclose the device wherein the first insulation layer is organic and the second insulation layer corresponds to a silicon nitride layer.

9. It would have been obvious to one having ordinary skill in the art at the time the invention was made for the first insulation layer to be organic and the second insulation layer to correspond to a silicon nitride layer since employing an organic layer or a silicon nitride layer as insulation films are well known in the art as appropriate insulation materials between conductive layers to prevent short-circuiting.

10. Referring to claims 6 and 12, Kwak discloses the device previously recited, but fails to disclose the device comprising a switching device having a gate electrode, a drain electrode that is electrically connected to the pixel electrode and a source electrode, a gate line that is electrically connected to the gate electrode, and a data line that is electrically connected to the source electrode, wherein a portion of the data line overlaps with the pixel electrode.

11. It would have been obvious to one having ordinary skill in the art at the time the invention was made for the device to comprise a switching device having a gate electrode, a drain electrode that is electrically connected to the pixel electrode and a source electrode, a gate line that is electrically connected to the gate electrode, and a data line that is electrically connected to the source electrode, wherein a portion of the data line overlaps with the pixel electrode since such a TFT configuration is well known in the art in order to send signals to the pixel electrode, thereby forming a display through the liquid crystal layer.

12. Referring to claim 23, Kwak discloses the device previously recited, but fails to disclose that the liquid crystal layer is injected between the array substrate and the color filter substrate by a vacuum injection method.

13. It would have been obvious to one having ordinary skill in the art at the time the invention was made for the liquid crystal layer to be injected between the array substrate and the

color filter substrate by a vacuum injection method since injecting the liquid crystal layer using a vacuum injection method is well known in the art as an efficient and reliable means to forming the liquid crystal layer.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RICHARD H. KIM whose telephone number is (571)272-2294. The examiner can normally be reached on 9:00-6:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on (571)272-1787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Richard H Kim/  
Primary Examiner, Art Unit 2871

